

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01L21/02 H01L27/06 H01L27/01

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/011760 A1 (KIM YONG CHAN) 9 August 2001 (2001-08-09) paragraphs '0006! - '0014!, '0029! - '0044!; figures 1-3	1-7, 11-13
X	US 5 930 638 A (REEDY ET AL) 27 July 1999 (1999-07-27) column 13, line 4 - column 31, line 51; figures 2-7	1-6,8,9, 11-13
X	EP 0 450 503 A (NATIONAL SEMICONDUCTOR CORPORATION) 9 October 1991 (1991-10-09) page 1, line 28 - page 6, line 38; figures 1,2	1-5,10, 11
	----- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

7 February 2005

Date of mailing of the international search report

16/02/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Neumann, A

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 736 421 A (SHIMOMURA ET AL) 7 April 1998 (1998-04-07) column 7, line 45 - column 8, line 26 column 15, line 53 - column 17, line 45; figures 1,13-16 -----	1-5,11, 12
X	ANONYMOUS: "Precision resistors, capacitors and local interconnects crossing over gate electrodes" RESEARCH DISCLOSURE, KENNETH MASON PUBLICATIONS, HAMPSHIRE, GB, vol. 310, no. 17, February 1990 (1990-02), XP007114706 ISSN: 0374-4353 the whole document -----	1-3,11
A	US 2002/149049 A1 (OKUDA SHOJI) 17 October 2002 (2002-10-17) paragraphs '0026! - '0044!; figure 2 -----	1-13
A	US 2002/142540 A1 (KATAYAMA SATOSHI) 3 October 2002 (2002-10-03) paragraphs '0047! - '0091!; figures 1-3 -----	1-13
A	US 6 261 915 B1 (EKLUND ROBERT H ET AL) 17 July 2001 (2001-07-17) column 2, line 29 - column 4, line 29; figures 1-5 -----	1-13

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2001011760	A1	09-08-2001	KR 257079 B1	15-05-2000
			US 6246084 B1	12-06-2001
US 5930638	A	27-07-1999	US 5864162 A	26-01-1999
			US 5572040 A	05-11-1996
			US 5416043 A	16-05-1995
			US 6090648 A	18-07-2000
			JP 11500268 T	06-01-1999
			WO 9625765 A1	22-08-1996
			AT 189079 T	15-02-2000
			CA 2165334 A1	26-01-1995
			DE 69422714 D1	24-02-2000
			EP 0708980 A1	01-05-1996
			JP 3492372 B2	03-02-2004
			JP 8512432 T	24-12-1996
			WO 9502892 A1	26-01-1995
			US 6057555 A	02-05-2000
			US 5973363 A	26-10-1999
			US 5492857 A	20-02-1996
			US 5663570 A	02-09-1997
			US 5596205 A	21-01-1997
			US 5861336 A	19-01-1999
			US 5883396 A	16-03-1999
			US 5973382 A	26-10-1999
			US 5600169 A	04-02-1997
			US 5863823 A	26-01-1999
			US 5895957 A	20-04-1999
EP 0450503	A	09-10-1991	EP 0450503 A2	09-10-1991
			JP 6045343 A	18-02-1994
			KR 227874 B1	01-11-1999
			US 5443994 A	22-08-1995
US 5736421	A	07-04-1998	JP 3583476 B2	04-11-2004
			JP 7202012 A	04-08-1995
			JP 2003017580 A	17-01-2003
			JP 7235616 A	05-09-1995
US 2002149049	A1	17-10-2002	JP 2002313932 A	25-10-2002
			US 2003173610 A1	18-09-2003
US 2002142540	A1	03-10-2002	JP 2002280459 A	27-09-2002
US 6261915	B1	17-07-2001	US 5465005 A	07-11-1995
			US 5236857 A	17-08-1993